

W5YI

National Volunteer Examiner Coordinator

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

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1988 - THE YEAR IN REVIEW

Every year about this time we pause to reflect on the major amateur radio and telecommunications happenings of the past twelve months. Technology, like time, never stands still. It is always in a state of change. We have just ended our tenth year of publishing **THE W5YI REPORT**. This issue starts Volume 11. As usual, there was good and bad news ...there always is.

THE MAJOR HAM RADIO NEWS...

(1.) Last year's main event ...became the non-event of 1988. **Novice Enhancement** allowed entry level amateurs to sample high frequency and repeater operation ...and to link their computers via packet radio. It was thought that there would be a big surge in Novice operators. At first there was, but this turned out to merely be applicants beating the deadline for the old Novice requirements.

Not only are there less Novices now than two years ago, fewer applicants joined the ham ranks for the first time in FY-88 than in FY-86, the last full year prior to Novice Enhancement. The FCC's fiscal year runs from October 1 to September 30. (21,080 applicants became hams for the first time in FY-1988 versus 21,956 for FY-86.)

The good news is most amateur service growth is at the Technician level ...primarily because the old 50 question (Element 3) Tech exam has been separated into two 25 question tests. Element 3(A) became the lone requirement for the Technician Class. The high frequency oriented questions

from the Element 3 pool became Element 3(B) ...and a prerequisite for the General Class.

Total **amateur service growth this year stands at a scant 1.5%**. Due to the establishment of ten year term ham tickets in January of 1984; 1988 was the last year that licensing figures indicated amateur radio growth. For five years (ending December 1993) there will be no renewals ...and no "drop outs". The FCC data base will only show amateurs being added to the service ...none deleted. It is expected that the amateur population will soar by 5% in 1989 - 3.5% of which is represented by those who would have normally not renewed their tickets! Some 15,000 amateurs dropped out of ham radio in 1987, ...13,000 in FY-1988. In five years, approximately 70,000 licensees will be carried on the FCC rolls that historically would have been purged from the FCC data base!

(2.) The number one ham story of 1988 was the **reallocation of the 220-222 MHz band** to narrow-band land mobile (business) operation. Although the fight for 220 is not yet over, amateurs as a whole were shocked over the inability of the ARRL to save the band for exclusive ham use. Many amateurs were taken by surprise by the spectrum redistribution even though the Commission in 1983 clearly published (FCC 83-1; WARC-79 implementation) that it was indeed considering a fixed and/or mobile service allocation in the 220-225 MHz band.

In August, after accepting late-filed comments from *United Parcel Service* stating their intent

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(7.) **Coordination of amateur repeaters** continued to be a problem with multiple coordinators - some self-appointed - assigning channels to identical spectrum in the same geographical area. Some disputes have ended up in the courts. Coordinators, as a whole, did not concur with the FCC's position which permits more than one coordinator for the same spectrum per region as long as both have amateur support. Opposing frequency coordinators could not agree among themselves on their assignments and the Commission left the feud for the amateur community to work out. An effort to redefine the term "frequency coordinator" failed in August.

(11.) **Uniden Corporation** (at year beginning) and **Radio Shack** (at year end) entered the ham radio equipment business with newly introduced ten meter transceivers - both manufactured by Uniden-Japan. Uniden's distribution pipeline consists of wholesalers who primarily sell the non-amateur market and many of the radios fell into unlicensed hands.

Uniden made a decision at year end to fully encapsulate the microprocessor and PLL (frequency

WOULD YOU LIKE TO BECOME A VOLUNTEER EXAMINER?

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determining) circuitry in epoxy so that the radios could not be easily modified to operate outside of the amateur ten meter band. Any modified radios returned to the factory for service will be restored to the original condition and encapsulated. Production of the transceiver will soon change from Taiwan to the Philippines, we were told. New 1989 production of the HR-2510 will contain a 100-KHz offset so amateurs can operate through ten meter FM repeaters, all sub-audible tones, and scanning will be at 5 KHz increments instead of 10. The characteristic "beep" at the end of each transmission will also be eliminated. Uniden plans to introduce more amateur equipment in 1989 in an attempt capture a piece of the legitimate ham market.

(12.) In March, the FCC issued a *Notice of Proposed Rule Making* to streamline and clarify its **Part 97 Amateur Radio Service Rules**. Comments closed in November. The new rules, if adopted, makes several changes to the rules. (See *May 1 W5YI Report*.) Amateurs particularly objected to the provision that would permit the FCC to order any amateur causing interference off the air regardless of the cause.

(13.) **AMSAT's Phase 3C OSCAR 13** was launched during early June and became an improved version of **OSCAR 10**. It included a satellite based packet radio system in a highly elliptical orbit.

(14.) In May, the FCC launched **license revocation proceedings** against eleven amateurs in Puerto Rico accused of participating in various schemes to obtain amateur radio operator licenses by fraudulent means.

(15.) We were one of the first to report on **parasitic viruses**, self-replicating "time bomb" programs designed to destroy software, became the new threat to computer users everywhere ...including the Department of Defense.

(16.) The "good old days of DX" returned as **Sunspot Cycle 22** continued its upward climb amid speculation that it could set a 250 year sunspot record covering 23 eleven year cycles dating all the way back to 1729.

(17.) At mid-year, a series of unfortunate incidents befell **Wayne Green/W2NSD**, publisher of 73 Magazine. In rapid succession, his Editor-in-Chief resigned in a huff, the Associated Press circulated an article about Green's activities - at least partially

uncomplimentary, and his ex-wife's lawyer husband published a highly unflattering book aimed at alerting the public about Wayne and his Vice Presidential candidacy.

(18.) In September, the FCC issued a Notice of Proposed Rulemaking aimed at authorizing General and higher class ham operators **access to the 17 meter WARC band**. The first 42 kHz segment of the 18.068-18.168 Mhz band would be allocated to telegraphy/digital emissions. More than 50 nations already permit their amateurs to operate in the 17 meter band. The ARRL asked for faster access than the planned July 1, 1989.

(19.) Maritime radio operators on the high seas are slated to become a thing of the past as world shipping leaders agreed to phase them out starting in 1993. **Telegraphy knowledge will no longer be a requirement** on ocean-going vessels as high-technology automatic satellite positioning and distress systems take over. An ARRL survey is also underway among its membership to take a look at the importance of the Morse code requirement as a prerequisite for access to any of the ham bands.

1988'S TELECOMMUNICATIONS NEWS

(1.) **Short handed and short changed** pretty much sums up life at the FCC. There are presently two Commissioner vacancies ...which almost became three when Commissioner Patricia Diaz Dennis was being eyed as the new Secretary of Labor. If Dennis had left the Commission, the FCC would have grinded to a halt since two Commissioners are not enough for a quorum.

The five member FCC has been operating with only three Commissioners for some time. The Senate Commerce Committee refused to hold confirmation hearings on the two Reagan replacement nominees to avenge the agency repeal of the Fairness (equal response time) Doctrine. And there is no telling if FCC Chairman Dennis Patrick will stay on in the Bush administration. He handed in his pro-forma resignation ...as did all other Reagan presidential appointees. The George Bush FCC could be markedly different from the Ronald Reagan FCC. Reagan's style of "the best government is no government, ...the best regulation is no regulation," may not be Bush policy.

Eighty percent of the FCC budget goes for personnel salaries. Agency wide manpower has

entry level novice course. Cost: \$19.95 plus \$2.00 shipping and handling. (4B). Cost: \$7.95 each plus \$1.50 shipping and handling. W5YI Report, Box #565101; Dallas, Texas 75356-5101

(one manual covers both 3A and 3B); Advanced (4A) or Extra Class (4B). Cost: \$7.95 each plus \$1.50 shipping and handling. W5YI Report, Box #565101; Dallas, TX 75356-5101

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dropped by ten percent, from 1,800 to 1,620 employees. The FCC is also implementing a 1989 belt-tightening program involving early retirements, hiring freezes, travel plan cutbacks, equipment purchase postponement and possible furloughs (leave without pay) since they have to work with \$5 million fewer "real" dollars. Many FCC personnel lost due to attrition are not being replaced. You can anticipate a necessarily slower pace at the agency. Even Amateur Radio application Form 610's - which have been taken for granted by ham operators for decades - now have to be printed at VEC expense since they are no longer supplied in quantity due to "budgetary constraints."

(2.) Large-than-life screen, digital-sound movie theatres in private residences with crystal-clear video are inching toward reality. **High Definition Television** was the behind-the-scenes video buzzword for 1988. HDTV has twice as many horizontal raster (scan) lines as our 525-line conventional TV and everyone seems to want a piece of the action, ...broadcasters, cable industry, movie makers, telcos, equipment manufacturers, ...DBS (direct broadcast satellite) operators.

The biggest hurdle seems to be development of a worldwide standard ...and what to do about the nation's 90 million households who already have conventional television sets. Japan is *far ahead* of the U.S. in HDTV technology. Their NHK state-owned broadcasting company has an operating 1,125 line MUSE high-resolution system which is not compatible with our current NTSC (National Television Standards Committee, 4:3 aspect ratio) "squarish" screen television sets.

The Muse system compresses a 30 MHz studio signal down to an 8 MHz wide transmission. (We understand that a "workable" converter to a 6 MHz channel has been devised, however.) Muse TV sets also have a different (16:9) aspect (height/width) ratio. The TV screen is rectangular ...about 15% wider on each side and more similar to that of a movie theatre screen. And gone are the annoying wiggles, flicker and distortion of NTSC video transmissions.

The FCC has been trying to get all concerned to agree on a U.S. standard via the *Advanced Television Systems* (advisory) *Committee* route. The ATSC is headed up by FCC Mass Media Bureau Chief, **Alex Felker/N4LF**. It appears that Japan will simply by-pass that effort and export

Muse VCR's and TV's to the American consumer who will view NHK or other 1125-line direct satellite broadcasts ...until the U.S. with their historic "wait-and-see/let the market-place decide" policy is forced to adopt their system. Congress may have to step in.

A main concern of adopting the Japanese 1125-line standard is that Japan will also become the main supplier of Muse TV sets and with it will come a whopping \$200 billion trade deficit once it catches on. The U.S. television industry does not want to be left out. Television makers are understandably not publicizing the approach of HDTV ...worried that the American consumer will stop buying NTSC sets if they find out they could be obsolete in a year or so.

The movie making industry is already using the Muse system to produce high-quality feature length presentations at a lower cost than conventional 35mm film. Present widescreen movies must be electronically "reshot" so all major action occurs within NTSC narrow-screen TV set borders.

Broadcasters are talking about needing more television spectrum since they say they can't effectively cram 35mm resolution into current 6 MHz TV channel bandwidths. They are worried about what happened to AM radio after FM's superior sound quality took over as the primary broadcast music medium. The mobile-radio community is outraged that broadcasters are trying to reclaim UHF-TV spectrum that they have been reallocated. How will the upcoming General WARC set for the early 1990's rule on HDTV spectrum needs?

There are other high resolution TV systems being considered - including an enhanced 525-line 6-MHz NTSC standard - but some of the HDTV signal is lost. You probably won't see high definition sets for a couple of years. HBO says they will simulcast their programming to their 20 million subscribers in both HDTV (probably NHK/Muse) and NTSC starting in 1991! Stay tuned. Big screen HDTV promises to be truly revolutionary ...and undoubtedly painful to many.

(3.) What, when, ...where! **Broadcast indecency standards** used to be based on "what" was said or showed. The famous *Carlin/Pacifica* seven dirty words were clearly defined. You simply couldn't broadcast them. More than a year ago the FCC replaced it's 1978 "seven dirty words" yard-

1 Each 10 or more (Qty.)
\$2.00 \$1.00 \$1.00
QUESTION POOLS
Novice - Element 2
Technician - Element 2(A)
NEW!!
PLS
Contain all...
I AM JRF DQI ION PLS
Order From:

stick with a new definition of indecent content as being patently offensive as measured by contemporary community standards. (Obscene programming is legally more serious ...appealing to the prurient interest.)

Broadcasters took the matter to court charging that the Commission should not be acting as the nation's censor. They also maintain so-called indecent speech is protected by the *First Amendment*. The FCC then changed their "what" to a "when" approach and "channeled" (pun intended) adult material to times when children were unlikely to be watching. A 10 p.m. to 6 a.m. "safe harbor" (later changed to between midnight and 6 a.m.) was deemed by the FCC as free from the indecency constraints.

This past fall, Jesse Helms (R-NC) tacked a controversial indecency amendment onto a bill increasing the FCC budget to \$100.4 million. Reagan signed the bill into law and broadcast stations are now banned from airing R-rated material 24 hours a day. Public Law 100-459 required the Commission to issue a new set of indecency standards by January 31, 1989. The FCC said they were not empowered to declare an act of Congress unconstitutional and the new guidelines were released on December 21.

Broadcasters not only feel the statute is clearly unconstitutional but they say it puts them at a programming disadvantage since the law does not apply to subscription television, cable and direct-broadcast satellite services. The indecency statutes have now taken on a "where" look. Programming that can't be aired on a broadcast station, can be on cable. (There are some X-rated adult video services serving back yard dish owners and their programming borders on obscenity which is illegal in all cases.)

The courts have ruled that cable and other pay-video services are not "free" broadcast operations. "Subscription television is not broadcasting because special equipment is needed to receive the service and there is a contractual relationship between the subscribers and the programmer." Its not over 'til its over ...and it's not over yet. Broadcasters are going back to court. This is starting to look like a "Who's on first" comedy bit.

Other stories that made news during 1988 were the pirate plans to return to the AM airwaves

of *Radio New York International*. The FCC ruled (on Dec. 20th) the the right of free speech does not include the right to broadcast without a license even though in international waters beyond the 3-mile territorial limit. The unauthorized rock-n-roll station had returned briefly to the airwaves in October broadcasting from a 170-ft rusting trawler.

The FCC and FBI mounted a major crack-down ***campaign against satellite signal piracy*** and illegal descramblers in 1988. It is estimated that one-half of the approximately 1 million decoders in existence are illegally modified units!

The return of Apple founder, **Steve Jobs**, and his revolutionary **NeXT** Computer made headlines everywhere in October. The \$6,500 unit features an erasable 256MB optical disk drive and 8MB of memory.

HAMS TRY TO ASSIST ARMENIAN VICTIMS

When several towns in Soviet Armenia were jolted by a devastating earthquake, radio amateurs were among the first ones to react. But how? Would the Russians allow ham radio operators and international assistance from outside their country?

The magnitude of the December 7th earthquake caught the Soviet leaders off guard. Mikhail Gorbachev, who was in the United States at the time, cancelled the remainder of his trip and returned to the Soviet Union. Armenians around the world begged to know about their families and friends, but to know avail. Ham operators explained that without electricity ...and with Soviet restrictions, the only thing to do was wait.

On December 11th, a historic first ever agreement was made allowing third party traffic between the Soviet Union and the United States to facilitate the flow of emergency traffic. Canada was also given permission, but there was no one to receive the traffic in Armenia. As usual, the news media initially turned to the ham operator for information, but no amateurs were transmitting out of the stricken area. Eventually network news teams were allowed to broadcast from the devastated areas with portable satellite dishes.

Two Miami based SIRA (the Spanish language *Sociedad Internacional de Radio Aficionados*) members flew to Yerevan after refueling stops [Continued on page 9... **Armenian Earthquake**]

NOVEMBER AMATEUR LICENSING STATS

<u>November</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	
New					
Amateurs	910	1404	1131	1852	
<u>Upgrading:</u>					
Novices	498	698	647	1045	
Technicians	239	262	231	409	
Generals	240	300	224	338	
Advanced	171	190	134	285	
Total:	1148	1450	1236	2077	
<u>Renewals:</u>					
Total Renew:	2175	2398	2183	1874	
Novices	526	160	126	165	
<u>Purged:(*)</u>					
Total Drop:	1296	782	743	1569	
Novices	818	471	354	610	
<u>Census:</u>					
Indiv. Oper.	413642	419258	431301	438038	
Change/Year		+5616	+12043	+6737	
<u>Indiv. Operators by Class:</u>					
<u>Extra</u>	<u>Advan.</u>	<u>General</u>	<u>Tech.</u>	<u>Novice</u>	<u>Total:</u>
<u>November 1985:</u>					
38305	97781	117082	83387	77087	413642
9.3%	23.6%	28.3%	20.2%	18.6%	100%
<u>November 1986:</u>					
40989	97821	115998	85431	79019	419258
9.8%	23.3%	27.6%	20.4%	18.9%	100%
<u>November 1987:</u>					
43608	98383	114396	92618	82296	431301
10.1%	22.8%	26.5%	21.5%	19.1%	100.0%
<u>November 1988:</u>					
46735	98463	112974	100878	78988	438038
10.7%	22.5%	25.8%	23.0%	18.0%	100.0%
Club/ RACES & Military	(1985) 2753	(1986) 2614	(1987) 2411	(1988) 2288	
Total Active	413395	421872	433712	440316	
% Increase		+2.1%	+2.8%	+1.5%	

• **Amateur Radio Milestone:** Six years ago this month (January 1983), FCC 83-28 proposed two new Amateur Radio entry class options. Option one would allow operation above the 6 meter ham band by eliminating the code requirement from the Technician Class - Option two would create a new "Experimenter Class" license with a harder written examination - Element 5 - than the existing Technician.

• According to **Don Bennett/K4NGC**, 74.2% of the world's 3,565 operating amateur packet radio stations are in the U.S., followed by Japan 4.6%, U.K. 4.5%, Canada 3.1% and Germany 2.2%.

AMATEUR RADIO CALL SIGNS

...issued as of the first of December 1988.

<u>Radio District</u>	<u>Gp."A" Extra</u>	<u>Gp."B" Advan.</u>	<u>Gp."C" Tech/Gen</u>	<u>Gp."D" Novice</u>
0	WO0Z	KE0ZM	NOJYT	KB0DNE
1	NU1P	KC1MV	N1GDL	KA1SUP
2	WM2L	KE2KJ	N2IUO	KB2GPA
3	NT3A	KD3KP	N3GRH	KA3TVE
4 (*)	AB4LX	KM4LB	N4ULP	KC4HSF
5 (*)	AA5IZ	KG5PQ	N5NNP	KB5HWC
6 (*)	AA6LQ	KJ6OV	N6TUM	KC6AXI
7	WV7L	KF7PO	N7LYP	KB7GER
8	WM8X	KE8VK	N8KDJ	KB8FTC
9	WE9P	KE9NV	N9HZZ	KB9BSQ
N. Mariana Is.	AH0H	AH0AE	KH0AL	WH0AAI
Guam	KH2K	AH2CD	KH2DN	WH2ALU
Johnston Is.	AH3B	AH3AC	KH3AB	WH3AAC
Midway Island		AH4AA	KH4AD	WH4AAF
Palmyra/Jarvis	AH5A			
Hawaii	(**)	AH6JJ	NH6SD	WH6CBB
Kure Island			KH7AA	
Amer. Samoa	AH8C	AH8AD	KH8AG	WH8AAX
Wake Wilkes Peale	AH9A	AH9AD	KH9AD	WH9AAH
Alaska	(**)	AL7KO	NL7PC	WL7BSS
Virgin Islands	NP2E	KP2BN	NP2CT	WP2AGE
Puerto Rico	(**)	KP4PW	WP4SK	WP4IGE

NOTE: * = All 2-by-1 format call signs have been assigned in the 4th, 5th and 6th radio districts. 2-by-2 format call signs from the AA-AL prefix block now being assigned to Extra Class amateurs. ** = All Group "A" (2-by-1) format call signs have been assigned in Hawaii, Alaska and Puerto Rico. Group "B" (2-by-2) format call signs are assigned to Extra Class when Group "A" run out.

[Source: FCC, Gettysburg, Pennsylvania]

• An interesting feature length illustrated article appears on page 82 of the January 1989 issue of **Discover**, a consumer science magazine on sale now at your newstand. It tells in considerable depth about a ham radio DXpedition by husband/wife Charlotte Richardson/Paul Young to the Galapagos Islands. The feature written by Judith Stone, explains to the non-ham public in non-technical terms about two-way DXing, high frequency radio, sunspot cycles, radio wave phenomena (such as meteor showers, aurora borealis propagation and maximum usable frequencies,) the Dayton Hamvention, "a zillion hams in Japan" and QSLs that DXers collect the way other people collect stamps. "Being in a remote spot like the Galapagos during a contest gives you an edge in the battle of the bands; rare

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stations are in such demand that you're inundated with callers, and the cards pile up. ...Most DX contacts are quickies -- wham-bam-thank-you-ham. ...It's fun trying to collect all 319 of the world's countries and territories. I still need Angola, Albania and Afghanistan." Richardson and Young met at work (they are *Digital Equipment Corp.* programmers) "Her novice license came in 1981, their marriage license in 1982." No amateur call signs are given. The article should alert Discover's vast readership to one of the main pursuits of ham radio.

• A 2-watt 2-meter Yaesu handheld, space-lifted up to the **Soviet MIR orbiting space station** during a supply run, is being used on Saturday and Sunday UTC to make free time contacts with the world's hams. **U1MIR/Vlad** and **U2MIR/Musa** transmit on 145.55 MHz., listen on 145.525. (145.575 is a secondary receive frequency.) Their antenna is a quarter wave ground plane. MIR passes over the northern latitudes 6 or 7 times a day at approximate 1.5 hour intervals.

• Canada is still going ahead with its **Amateur Radio restructuring**, and a delay is not expected even though Canada is in the process of changing its Communications Minister. *Flora Macdonald*, the previous minister, was not reelected. Canada's two amateur organizations oppose the provision that only top ham class Certificate "D" holders be allowed to home-brew transmitters. Com Can (Communications Canada, their regulatory agency) may permit the beginning three levels to use transmitters made from commercially assembled kits and from industry surplus transmitters which require only a change of crystals to put them in the Amateur band. In any event, Canada's modular system should be in place by September 1989. (Thanks CARF/CRRL)

• Effective January 31, 1989, manufacturers, distributors, importers and marketers of digital electronic equipment in Canada must pass stricter **new emission standards**; D.O.C. Regulation C-108.8

• **Potential big ham radio market!** U.S. population over the age of 65 will reach 65 million by the year 2030, with a median net worth of \$65,000 - nearly twice the national average! They will have about 75% of the nation's wealth and about half of the discretionary income.

• **KB1T Radio Specialties** has 1989 Amateur Radio photo Calendars at \$9.95 plus \$2.00 shipping. The 36-page 11" X 17" calendar contains

zone maps, prefix/zone list, ham band limits, contest dates and all sorts of operating aids. (Box 1015-YI, Amherst, NH 03031)

• The FCC's New York Field Office shut down an **illegal radio repeater station** on December 8th that was found operating just above the amateur two-meter ham band. The station, located at the home of **William Matos** in downtown Manhattan, was operating in the 148-149.9 band on spectrum reserved for U.S. Government fixed, mobile and satellite systems. The unauthorized station was being used for personal communications by an estimated dozen individuals in the New York area. Matos could be subject to a fine of up to \$100,000 and/or one year in prison.

• The **220 Spectrum Management Association of Southern California** wrote a rather strong letter to the ARRL stating they were "shocked and dismayed" that the League was withholding future recognition of the 220-SMA as the rightful 220-MHz frequency coordinator. Southern California has two competing 220-Mhz coordinators, the 220-FCC and the 220-SMA whose coordinations overlap and conflict. 220-SMA said its frequency assigning roots go back to the 1960's. **Larry Price/W4RA**, League president, wrote 220-SMA membership that he did "not agree with your characterization of the actions of the ARRL Board as 'petty' and your use of language of this type adds very little to the merits of your presentation." Price said their dispute is not with the ARRL, but with the FCC "which has muddied the water. If you want to cry 'FOUL' (to use your term) it is the FCC which has 'fouled' you."

• An editorial by noted computer writer, John C. Dvorak, in the January 17, 1989, issue of PC Magazine, mentions: **The Great Wall Concept**. The Chinese learned thousands of years ago that no project is too difficult if you have lots of people working on it. The Great Wall of China is a perfect example of what 'people power' can accomplish. Taiwan is fast becoming a nation of engineers and great things happen when you throw unlimited numbers of engineers at a problem. The point is it is about time the United States also started some programs to develop trained engineers early. I recently chatted with **T. J. Van Houten**, a high-ranking official at the Boy Scouts of America International Headquarters office here in the the Dallas area. He is in charge of the BSA merit badge program. Houten said youngsters no longer have any interest

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questions, multiple
choice...w...brrr
answer identified!!
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Advanced - Element 4(A)
General - Element 3(R)
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in flag waving and Morse code. The book binding merit badge has now given way to Graphic Arts. Today's kids are interested in Robotics and Computers and BSA has (or is working on) these new high-tech merit badges! The Boy Scout signalling and radio merit badges are being de-emphasized - or eliminated! It seems to us that we need to repack-age ham radio with a new image and learn from the Chinese.

- Apparently the ARRL also feels it is time to step back and take a look at present day ham radio. Dave Sumner/K1ZZ and Larry Price/W4RA ask in their January 1989 "It seems to us..." editorial "Should basic Morse code ability be a requisite for each and every radio amateur, irrespective of their interests? Do present Morse requirements separate the sheep from the goats, or do they simply let in fewer of each?" Very good questions, indeed!

- Meeting in Baltimore on December 10th, the League's Executive Committee voted that the ARRL president appoint a six-member committee to explore the implications of a no-code license and make recommendations to the ARRL Board. The committee will be drawn from the Amateur Radio industry and the amateur community at large.

- We mentioned in our last newsletter that Washington, DC, communications attorney Raymond A. Kowalski would be meeting with the ARRL Board of Directors on January 20th, to determine if there was some common thread of interest in restructuring the amateur service. Kowalski has been retained to assist in that regard.

- The report of meeting with the Board was apparently premature. It had been my opinion after discussing the prospects of such a meeting with Jim Haynie/WB5JVP (ARRL West Gulf Director) that Ray could easily get on the agenda. Kowalski spoke to **Dave Sumner/K1ZZ** about it, and apparently getting permission to address the Board is not as easy as first thought. **Larry Price/W4RA** sets the agenda.

- We got a nice note from (ex-Astronaut) **Tony England/WOORE** on "Journal of Geophysical Research" stationery this past week. He said "I enjoyed and fully endorse your (December 1st) editorial about a no-code license. Good luck." We continue to get a lot of letters and comments concerning a no-code entry level amateur license. Some more samples:

Bill Coleman/AA4LR: "Although I would welcome more members to the amateur community, I would hope they would have time to absorb the better elements of the ham radio 'culture' rather than swooping in and usurping it with one of their own invention. I believe that goal can be obtained with a code-free license class as long as the written exam is more difficult than say, the Technician requirements. As for international regulations, poppycock! The ITU has no power to enforce their regulations. Although Morse knowledge is required for amateurs to operate below 30 MHz, no speed requirement is indicated, nor how such 'knowledge' is determined. Furthermore, with the current CB Service, the U.S. already violates the rule by using frequencies allocated by the ITU in Region 2 for amateur service for a Citizens Band. So don't give us that 'Morse is required below 30 MHz' stuff. I would limit the no-code licensees to subbands of the bands above 30 MHz - not because of the ITU, but because these bands are underutilized. Considering the amount of activity on 2 and 6 meters, perhaps limiting such a license class to frequencies above 220 MHz would be more sensible. As for exiling newcomers to a 'Siberia' frequency, no, we wouldn't want to do that. Instead, the newcomers should be allowed allocations in some middle-ground subbands, where things aren't too crowded, but there's enough exposure to other amateurs so they can lose that 'Novice accent.'"

Kim Knapp/AB4ES: I agree that the ham population could stand some new blood, but I believe they should want to become hams. The way to do that is to get out and cultivate that interest in the schools, ...find ways to tie young people's interest in computers to ham radio -- or educate them to see that those ties are already there."

Mike Covington/N4TMI: Solution: Remind the FCC that they are there to serve the public, not just the existing licensees, but also the people who would have been licensed if the requirements had been more in line with their interests."

Scott Loftness/W3VS: "The examination aspect is the key to no-code. It's not a 'No-Exam' license - just no code!"

Robert Watson/W6IEW: (ARRL Section Manager) "You have a real selling job to do if you want hams to support a no-code license. It was discussed at my Section meeting last weekend and without exception, everyone present (except me) was strongly opposed to 'no-code' in any form."

Bruce Woodward/W9UMH: (ARRL Section Manager) "I fought no-code. I will continue to fight it! Ray (Kowalski) does not speak for amateur radio! I am not sure you do."

Burton Eaton/N2FYT: The licensing tests continue to be inappropriate to find out if the applicant knows what to do on the air. We have no right or need to know what the applicant knows about certain electronic or electrical matters. It is extremely important to the hobby that the

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operator be taught to operate, the correct procedures and how the hobby is controlled or operated. Why should the FCC or the ARRL test an applicant's knowledge required for repair or maintenance when he/she will do neither? ...We have closed the flood gates and let in a bunch of memorizers. (We need) to devise new sets of standards, consistent with the sophistication and power of the gear available in the marketplace." (Check attached.)

Craig Bennett/NO1IM: (...if we hope to retain our frequency allocations by relying mainly on legal efforts, the ARRL can plan on spending increasing sums on legal battles that will probably be unsuccessful. It seems another, more positive approach to retaining our valuable frequencies is needed and I do not feel the ARRL will provide it. ...We should not allow a group of CW fanatics to ram Morse down every prospective ham's throat. I believe that a no-code license is a necessary, but not sufficient, means to get amateur radio growth figures up to an acceptable level. ...Code proponents can huff and puff all they want about its usefulness in emergencies when nothing else will get through [but] it appears to me that all local emergencies are usually coordinated on 2-meter FM repeaters. I have a difficult time accepting the belief that the elimination of a CW proficiency requirement will cause all sorts of unsavory characters to enter ham radio. The written tests are still in place to make the license mean something. In any event, newcomers cannot be expected to share feelings of nostalgia and affection toward Morse. If CW is great, let those who feel that way promote it, not force it on everyone. ...I feel the radio theory and practical parts of the tests are far more important than learning the code. ...We need to eliminate unnecessary barriers such as CW, and then develop and pursue an aggressive program designed to interest young people in amateur radio. ...Amateur radio is simply too exciting to allow it to become stagnant, languishing in the halls of yesterday." (Check attached.)

Bob Vallio/W6RGG: (ARRL Section Manager/Sec., YASME Foundation) "Your points, and those of Mr. Kowalski bear careful consideration. I do feel the time is appropriate to consider wider amateur use of our valuable frequencies. If a no-code license(s) can be shown to be beneficial to our service, I will be among those to support it."

Our mail so far has been running about 4 to 1 in favor of taking a hard look at restructuring the Amateur Radio Service entry requirements. Checks may be made out to: **Amateur Radio Expansion Fund, P. O. Box #19111, Washington, DC 20036**; if you would like to contribute to the legal effort.

[Continued from page 5... **Armenian Earthquake**]
in Gander, Shannon and Athens. **Fernando/HK1FMP** and **Johnny/HK1ABV** Million transmitted on 14.330 MHz. during the 15 hour flight to Soviet

Armenia. Since all the telephone lines were down, lists of persons and telephone numbers they took with them were worthless. It was impossible to locate survivors. An amateur radio station was heard weakly on 14.270. Its name was **Victor/UB5WE** located at Lvov, a town near the Polish border. The Million brothers returned a few days later. If the Soviet government gives permission to establish emergency communications, a SIRA team will accompany the Million brothers back to Armenia.

Glenn Baxter/K1MAN offered the services of his Maine-based **International Amateur Radio Network**. On December 11th, **UB5WE/Victor** came on 14.275 MHz said he was officially representing the Soviet Union and would accept IARN traffic for Armenia. The Soviets asked IARN to provide them with radio equipment ...mostly handi-talkies. IARN decided to set up an AMTOR link between Moscow and Yerevan. The Soviets agreed and two radio amateurs were dispatched with the equipment on Dec. 17th to Moscow on an Aeroflot flight. A **Tandy 1000-HX** computer was confiscated by customs at Kennedy airport, New York, as being something the Soviets aren't supposed to have ...although the Soviets wanted to take it on the flight.

Everyone was surprised when ham team was sent back to the United States from Moscow on the 19th. **Victor/UB3WE** was very critical of his government for sending the ham emergency team home as was **Tass**, the Soviet news agency, which did a lengthy story on the IARN attempt to help.

On Friday, December 23rd, Baxter received a letter from the high frequency committee of the **Radio Sports Federation** of the USSR who said they were the official coordinator of amateur radio activity in the earthquake area. The letter asked that the emergency equipment be sent back to the Soviet Union - including the computer.

The whole incident has created quite a furor in Moscow and Baxter awaits word as to whether the IARN team is indeed going back to the USSR to set up the AMTOR link between Yerevan, Armenia, and Moscow. Senator George Mitchell from Maine has intervened and an export license has now been obtained allowing the **Tandy 1000-HX** computer to be taken to the Soviet Union. **Victor/UB5WE** advised Baxter not to send the computer without the radio amateur team and the feeling is that since the Soviets want the computer, that the team will be allowed to assist. More later.

HAM HACKER HELD WITHOUT BAIL

In a rare ruling, convicted computer whiz, **Kevin David Mitnick, N6NHG**, 25, of Panorama City, CA, was ordered jailed without bail. Mitnick has been charged in a three-count federal grand jury indictment with illegally penetrating international computer and telephone systems and causing up to \$4 million in damage.

Among the systems he accessed were those of Digital Equipment Corp., Leeds University/England and MCI to obtain free telephone use. It is believed that the case is the first in the nation to be prosecuted under a federal 1984 Computer Fraud statute that makes it a crime to gain access to an interstate computer network for criminal purposes.

His attorney, Anthony J. Patti, said Mitnick could be controlled by placing him under house arrest and disconnecting all telephone lines. A federal magistrate denied bond, however, ruling "It sounds like the defendant could commit major crimes no matter where he is." Federal prosecutors obtained a court order restricting Mitnick's telephone calls fearing he might gain access to a computer over jail phone lines.

A chronic hacker, Mitnick has in the past accessed the internal records of the Los Angeles Police Dept., TRW and Pacific Telephone and tried to break into the USC system five years ago. His teenage record shows that he served six months in juvenile hall for stealing computer manuals from Pacific Telephone and altering telephone bills ...and for using a pay phone to destroy \$200 thousand worth of computer data of a Northern California company.

Mitnick later penetrated the files of TRW Corp. and altered the credit information of several people, including his probation officer whose telephone he allegedly disconnected with his computer. Mitnick has also found guilty of stealing software under development by Microport Systems but his conviction record mysteriously disappeared from Santa Cruz's police computer files. He earlier held amateur callsign, WA6VPS, General class.

Prosecutors alleged that Mitnick used a computer belonging to a friend, Leonard M. DeCiccio, at his Calabasas, California, work place to intrude on the Digital Equipment network. Mitnick might have gone undetected had DeCiccio not notified DEC's security division in Maynard, Massachusetts, about

the invasions into their system. A monitoring device confirmed Mitnick's activities that evening. Mitnick was allegedly examining the system to allow him to identify persons having legitimate access so he could further infiltrate the system, according to the complaint. DEC said it had lost about \$4 million because its 30,000 unit system had been the target of numerous breakins over the past year. A search of Mitnick's car turned up confidential DEC documents and he was carrying a list of 14 MCI network access codes when arrested on December 9.

Mitnick is also charged with stealing a DEC security software program valued at \$1 million from a Boston computer. Assistant U.S. Attorney Leon Weidman said he did not know what Mitnick intended to do with the program but he could have tried to sell it. A second charge accuses Mitnick of unauthorized use of MCI telephone lines to get into the computer at Leed's University in England.

More new evidence turned up last week indicates that Mitnick has penetrated the computer files of the nation's ultra top secret National Security Agency where he obtained telephone billing data. There was no evidence, however, that Mitnick has accessed their classified data files.

A Los Angeles newspaper report said that he may have planted a false story on a financial news wire that was released in the New York Stock Exchange about an astronomical \$400 million loss at Southern California's Security Pacific Bank. The story could have caused catastrophic damage exceeding that figure to the bank had it reached investors. Due to a "coding error" the hoax was uncovered before that could happen and the report not further circulated to newspapers. Mitnick had been turned down for a job at the bank just four days earlier for lying about his past criminal record.

The Los Angeles Police said "He's several levels above what you would characterize as a computer hacker. He started out with a real driving curiosity for computers that went beyond personal computers. He grew with the technology." The LAPD reported that Mitnick has tried unsuccessfully for years to get a job as a computer-security expert. Apparently no one put any stock in his ability. Mitnick, who was on 36 months probation in connection with the December 1987 Santa Cruz computer fraud sentence, now faces up to 20 years in prison and a \$750,000 fine if convicted on the new charges. He was arraigned on Dec 27.